FIG. 1

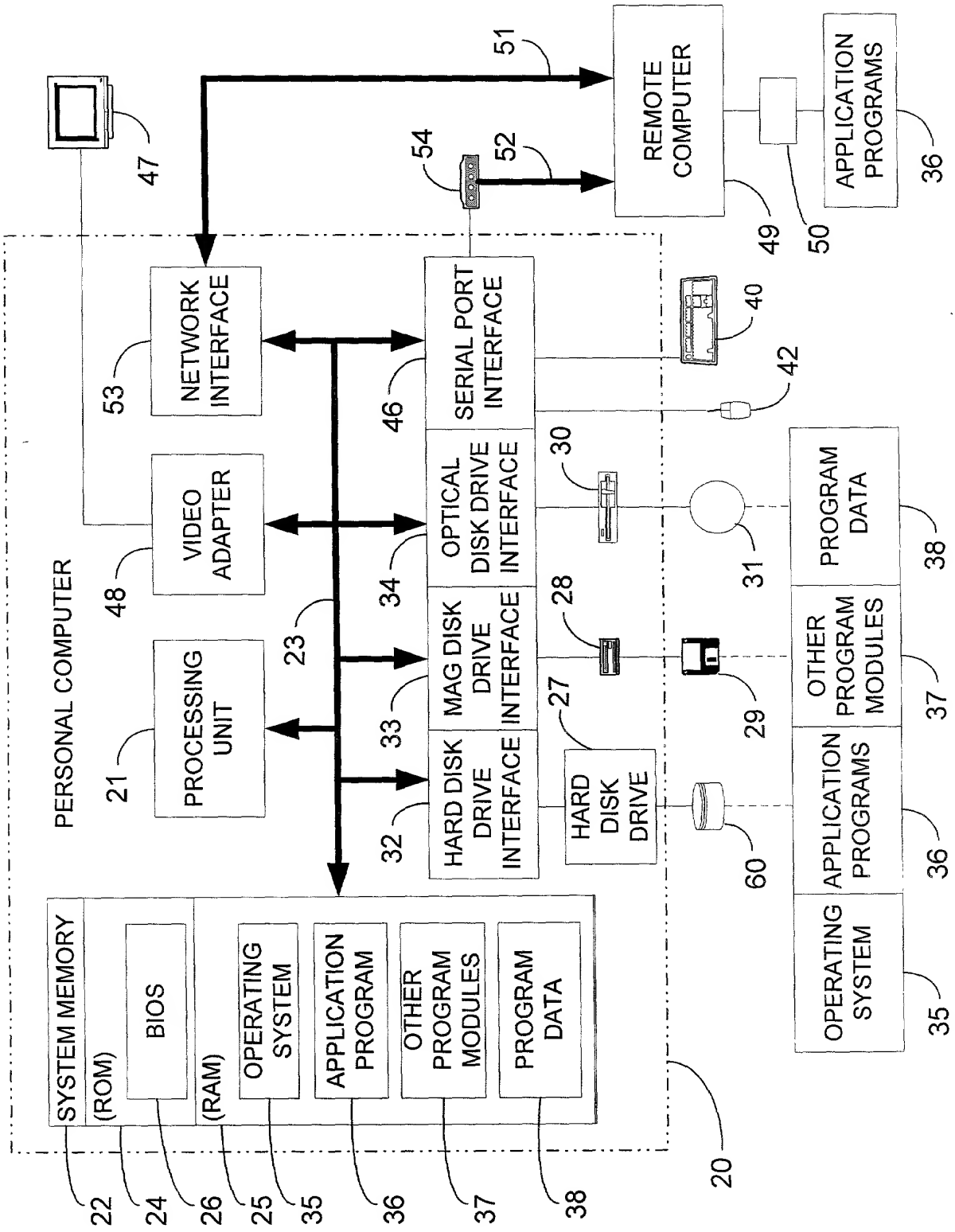

PERSONAL COMPUTER
20
SYSTEM MEMORY
(ROM)
BIOS
(RAM)
OPERATING SYSTEM
APPLICATION PROGRAM
OTHER PROGRAM MODULES
PROGRAM DATA
22
24
26
25
35
36
37
38
PROCESSING UNIT
21
VIDEO ADAPTER
48
NETWORK INTERFACE
53
HARD DISK DRIVE INTERFACE
32
MAG DISK DRIVE INTERFACE
33
OPTICAL DISK DRIVE INTERFACE
34
SERIAL PORT INTERFACE
46
23
HARD DISK DRIVE
27
28
30
31
29
60
40
42
47
54
52
51
REMOTE COMPUTER
49
50
APPLICATION PROGRAMS
36
PROGRAM DATA
38
OTHER PROGRAM MODULES
37
APPLICATION PROGRAMS
36
OPERATING SYSTEM
35

FIG. 2

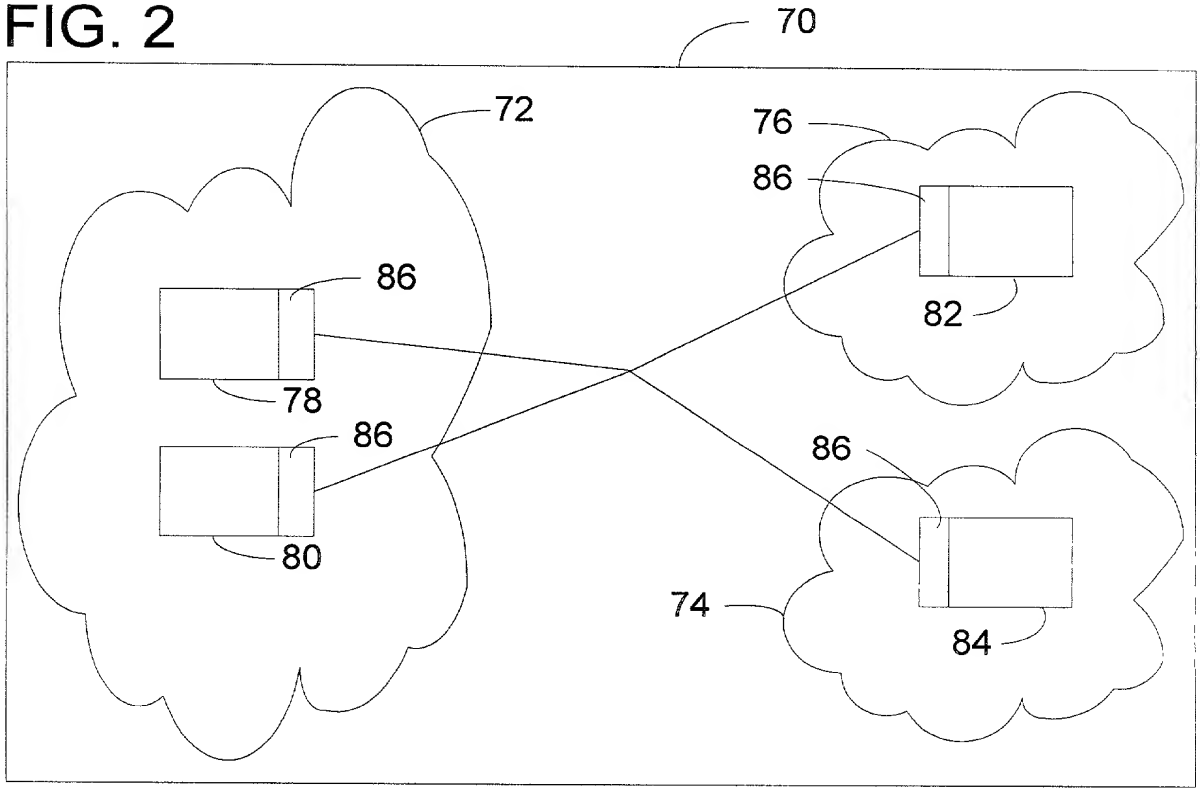

70
72
76
86
86
82
86
78
86
80
74
84

FIG. 3

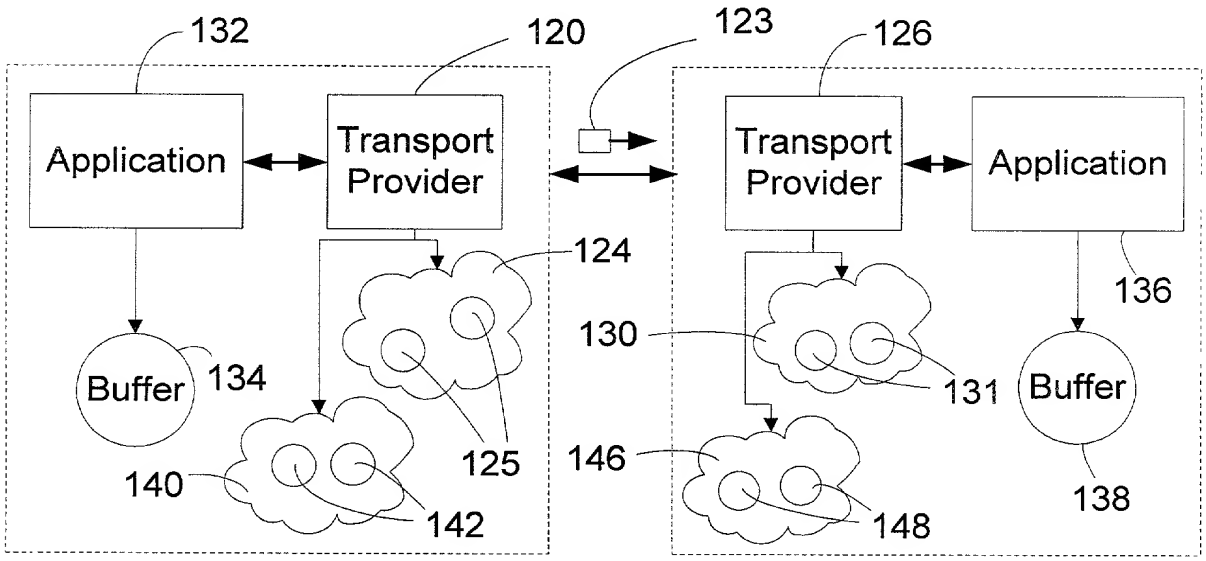

132
120
123
126
Application
Transport Provider
Transport Provider
Application
124
136
130
Buffer
134
131
Buffer
125
146
140
142
148
138

FIG. 4

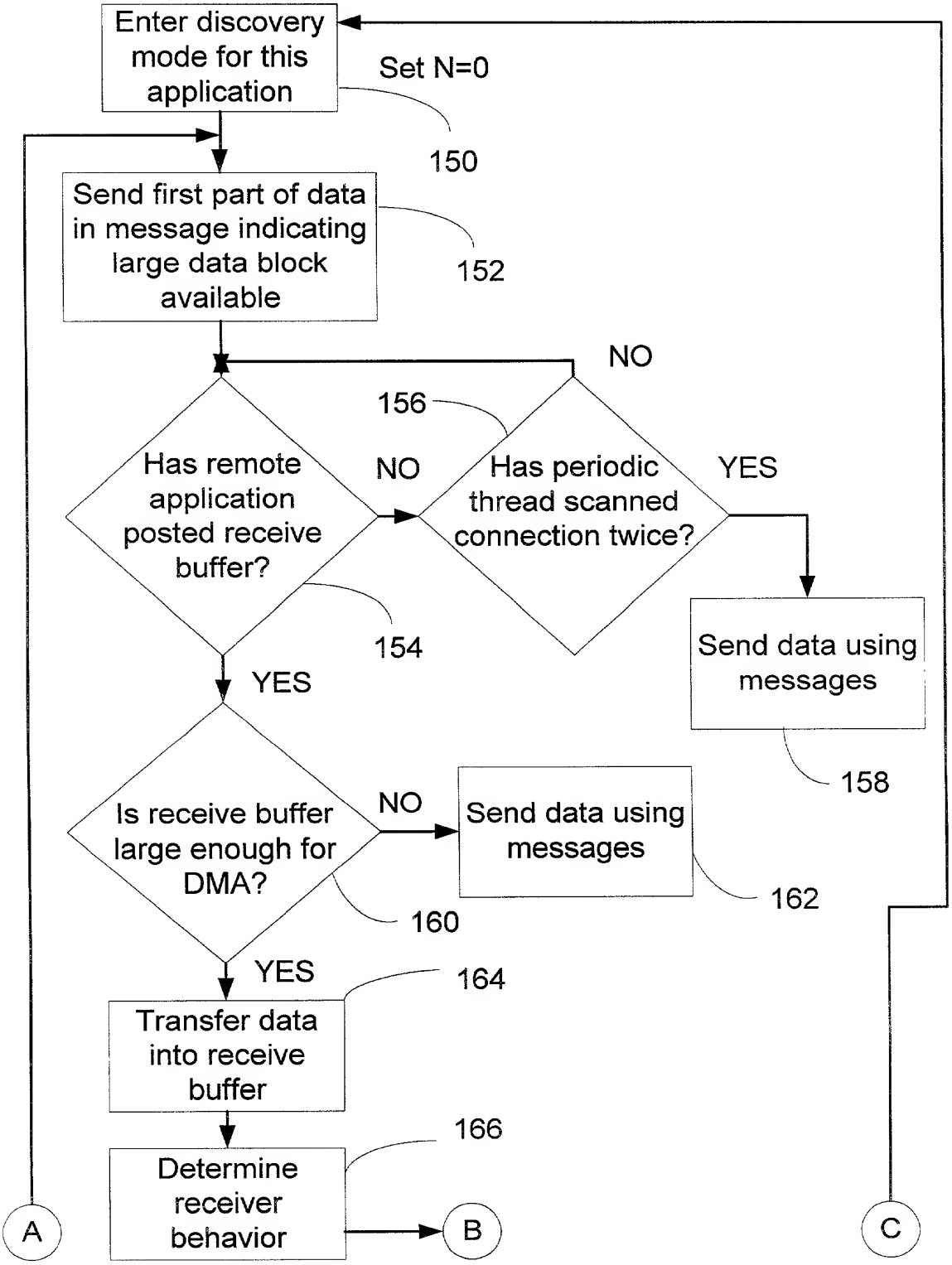

Enter discovery mode for this application
Set N=0
150
Send first part of data in message indicating large data block available
152
NO
156
Has remote application posted receive buffer?
NO
Has periodic thread scanned connection twice?
YES
154
Send data using messages
158
YES
Is receive buffer large enough for DMA?
NO
Send data using messages
162
160
YES
164
Transfer data into receive buffer
166
Determine receiver behavior
A
B
C

FIG. 5

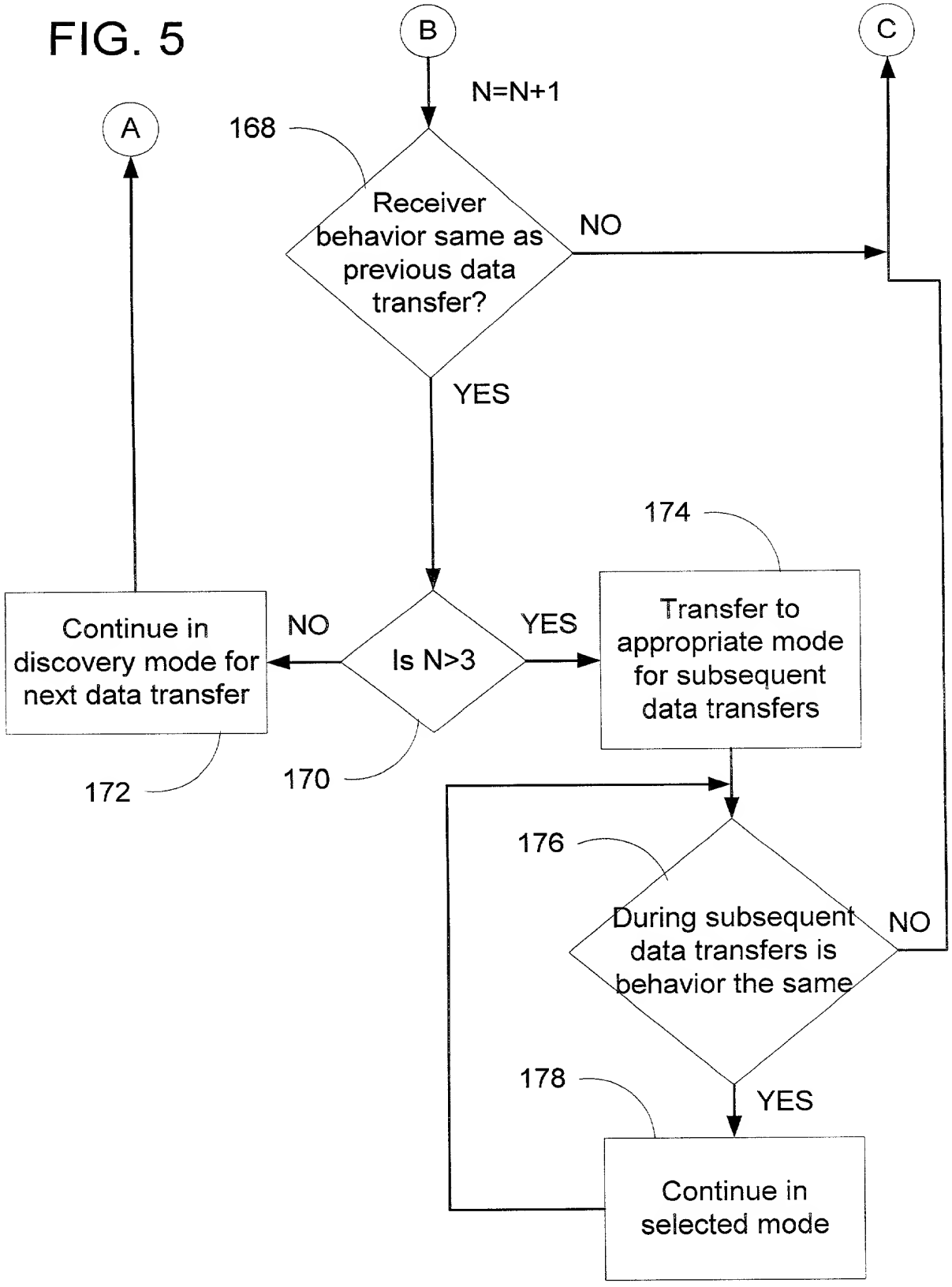

B
C
A
N=N+1
168
Receiver behavior same as previous data transfer?
NO
YES
174
Transfer to appropriate mode for subsequent data transfers
Continue in discovery mode for next data transfer
NO
Is N>3
YES
172
170
176
During subsequent data transfers is behavior the same
NO
178
YES
Continue in selected mode

FIG. 6

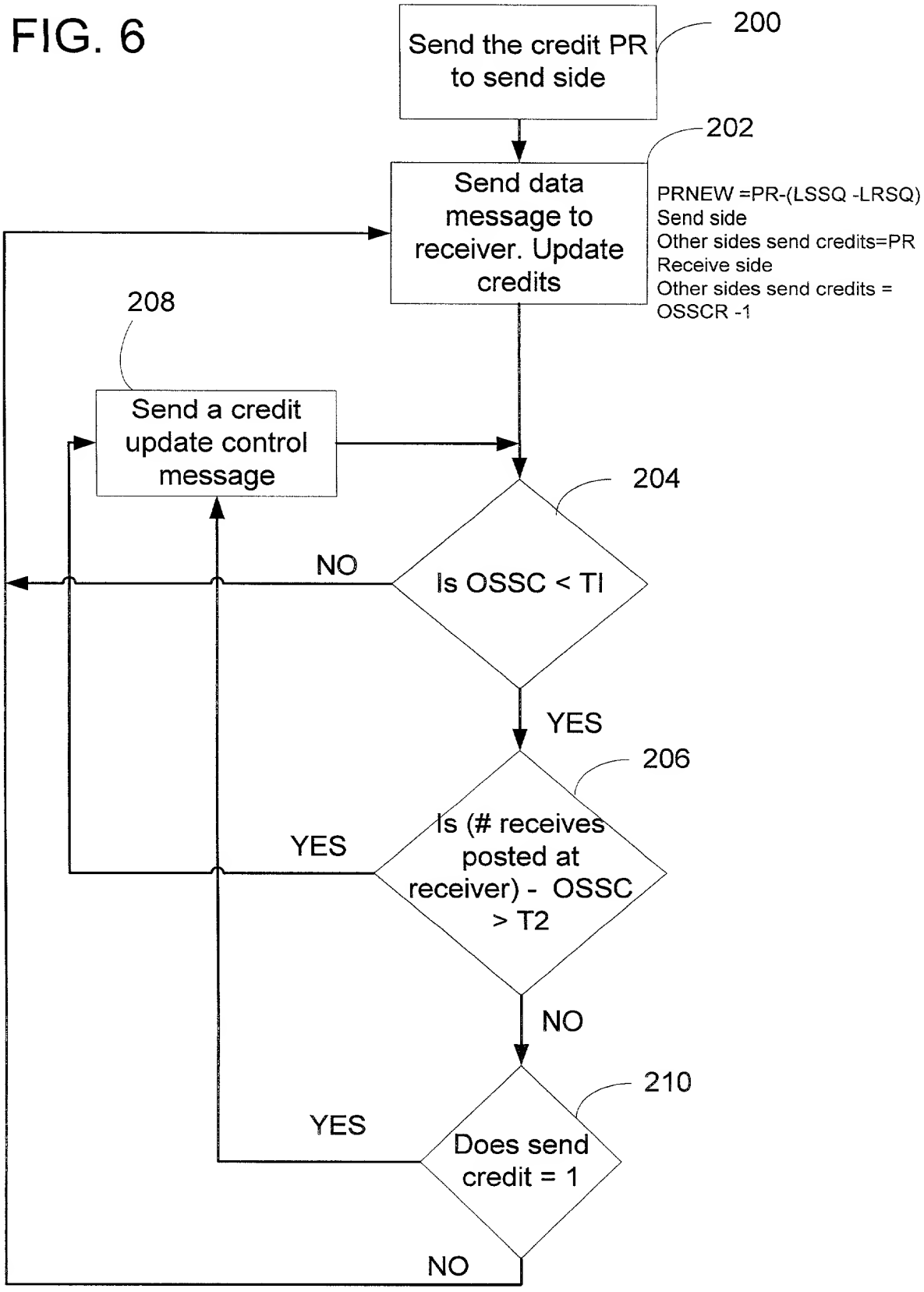
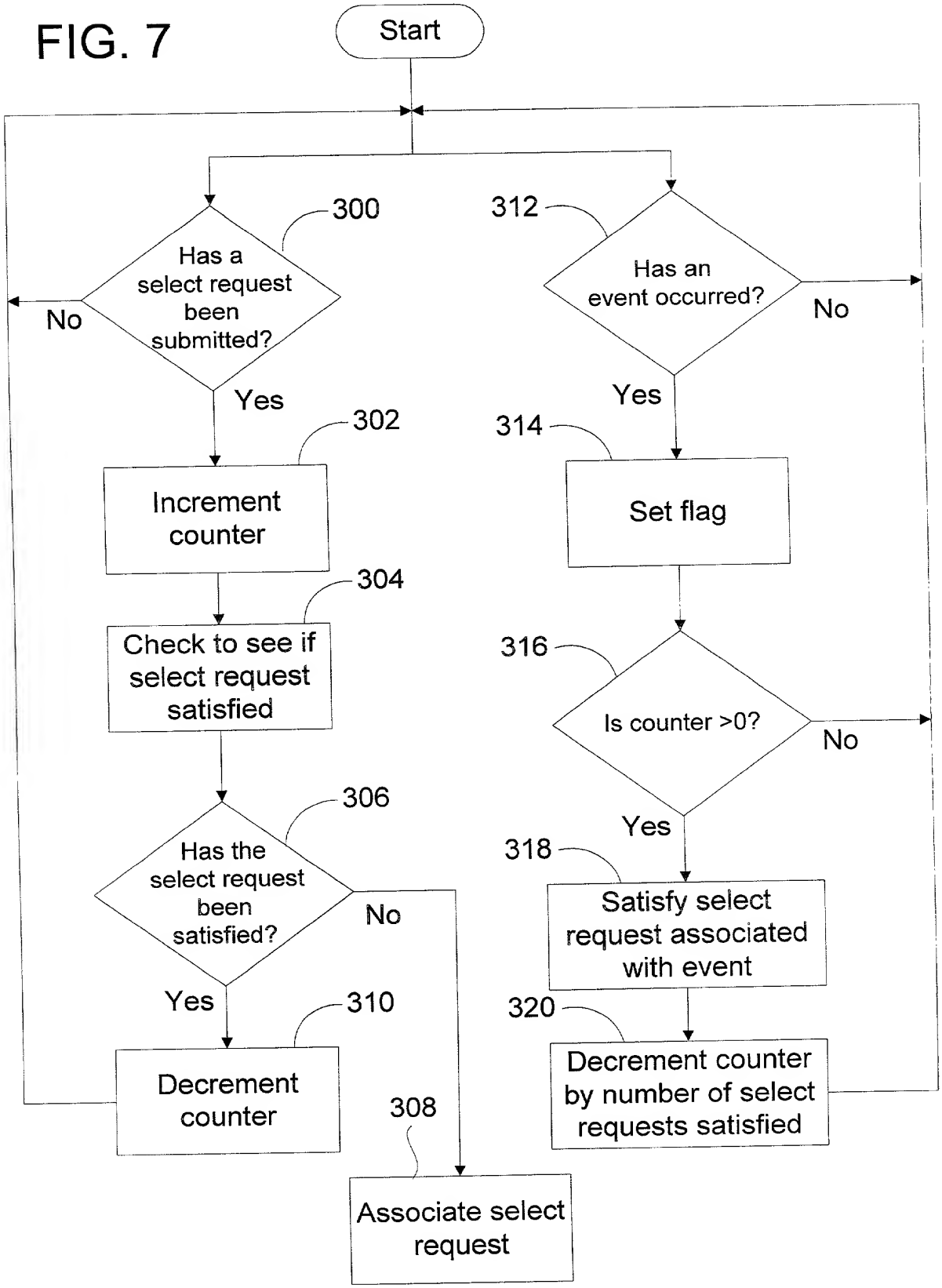

Send the credit PR to send side
200
Send data message to receiver. Update credits
202
PRNEW =PR-(LSSQ -LRSQ)
Send side
Other sides send credits=PR
Receive side
Other sides send credits = OSSCR -1
208
Send a credit update control message
204
Is OSSC < TI
NO
YES
206
Is (# receives posted at receiver) - OSSC > T2
YES
NO
210
Does send credit = 1
YES
NO

FIG. 7


Start
300
Has a select request been submitted?
No
Yes
302
Increment counter
304
Check to see if select request satisfied
306
Has the select request been satisfied?
No
Yes
310
Decrement counter
308
Associate select request
312
Has an event occurred?
No
Yes
314
Set flag
316
Is counter >0?
No
Yes
318
Satisfy select request associated with event
320
Decrement counter by number of select requests satisfied